

EDUFLARE AI-Powered Online Tutoring Platform using Full Stack Web Development

Mrs S. Sudha¹ and S. Sahana²

Assistant Professor, Department of Information Technology¹

UG student B.Tech., Department of Information Technology²

Anjalai Ammal Mahalingam Engineering College, Thiruvarur, India

Abstract: *EduFlare is an AI-powered online tutoring platform developed using full-stack web technologies to enhance the effectiveness of digital education. Traditional and existing learning systems often suffer from limited interactivity, delayed query resolution, and lack of personalized learning experiences. To overcome these challenges, EduFlare integrates a Natural Language Processing (NLP)-based chatbot for 24/7 real-time student assistance, collaborative filtering for dynamic course recommendations, and machine learning algorithms for automated quiz evaluation and progress tracking. The platform is structured with modular components, including user management, course creation, lesson and topic handling, and performance analytics. Built using PHP, Vue.js, and MySQL, EduFlare offers a scalable, interactive, and personalized learning environment that significantly improves student engagement, tutor efficiency, and overall accessibility to quality education*

Keywords: E-learning, personalized learning, online tutoring, student engagement, full-stack development

